

CLAIM AMENDMENTS

1. (currently amended): A method of producing compensation transforms comprising the steps of:
 - generating a plurality of color reference patches;
 - scanning said patches to produce scanned color space values, wherein the scanning is performed with a calibrated scanner;
 - measuring said patches with an optical measuring device to produce measured color space values; and
 - creating a compensation table from said scanned color space values and said measured color space values.
2. (currently amended): A method according to claim 1, wherein said compensation transforms for CMYK inks are processed for different levels of K using the formula $y = af_0(x) + (1 - a)f_1(x)$, wherein y is the compensated output, x is the uncompensated output, $f_0(x)$ is a transform for a first K cube, $f_1(x)$ is a transform for a second K cube, and a is a scaling factor.
3. (original): A method according to claim 1, further comprising the step of interpolating between different levels of K.
4. (currently amended): A method according to claim 1, wherein said color reference patches represent[[s]] different combinations of inks.

5. (original): A method according to claim 1, further comprising the step of transforming a color value of a color patch based on the original ink values of said color patch.

6. (original): A method according to claim 1, wherein said optical measuring device is a spectrophotometer.

7. (original): A method according to claim 1, wherein said compensation transforms are a set of look up tables that map scanned uncompensated CIEL*a*b values to compensated CIEL*a*b values.

8. (original): A method according to claim 1, wherein said compensation transforms are a set of look up tables that map scanned uncompensated CIEL*a*b values to compensated CIEL*a*b values for different combinations of ink values.

9. (original): A method according to claim 1, further comprising the step of mapping scanned CIEL*a*b values to optically measured CIEL*a*b values by using a CIEL*a*b to CMY transform for said scanning and a CMY to CIEL*a*b transform for said optical measuring device.

10. (original): A method according to claim 1, wherein said compensation transforms are a set of look up tables constructed out of gamut CIEL*a*b values using the least squares algorithm with CIEL*a*b values in the tables that are in gamut.